

### REMARKS

In the office action mailed from the United States Patent and Trademark Office November 22, 2006. Claims 1-14, 16-22, 24-43, 45, 47-53, and 56-58 were rejected under 35 U.S.C. § 102(b) as being unpatentable over Wells et al. (5,505,409) in view of Dietz et al (7,070,850); and claims 1-14, 16, 17, 19-22, 24-43, and 45-58 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Falco (5,133,519) in view of Dietz et al (7,070,850). Accordingly, applicant respectfully provides the following:

#### Rejections Under 35 U.S.C. § 103(a) over Wells in view of Dietz

The prior art cited by the examiner fails to teach or fairly suggest the claim limitations of the present invention. Verdegall Bros. v. Union Oil Co. of California, 814 F.2d 628, 631 (Fed. Cir. 1987). Independent claim 1 recites a regulator incorporated into the surface of an object comprising a removeably attached fluid flow regulator comprising: a leading edge; an orthogonal pressure recovery drop; a subatmospheric barrier; and a trailing edge that defines and extends from the base of said pressure recovery drop that provides a trailing flow boundary for said fluid. Independent claims 21, 31, 32, 38, 43, 56 and 57 include similar limitations.

While Wells discloses a recovery drop with a vertical component, Wells fails to disclose an orthogonal relationship between the vertical surface and the trailing edge. Orthogonal is defined by the Merriam/Webster dictionary as having perpendicular slopes or tangents at a point of intersection. Accordingly, the claim limitations for “orthogonal” describes the relationship of the intersection of the angle formed by the vertical drop face and the trailing edge. Wells discloses a method for reducing drag on air or foils. In particular, Column 3, line 64 of Wells teaches a vertical lee face, but fails to teach or fairly suggest an orthogonal pressure drop. Wells discloses at least six embodiments of pressure recovery drops. None of the disclosed embodiments include an orthogonal pressure recovery drop. While each of Wells drop faces possess vertical components, none of the disclosed embodiments or figures disclose an orthogonal pressure recovery drop, in which the vertical drop face intersects at a right angle with the trailing edge.

Dietz in like fashion discloses non-orthogonal pressure recovery drops. Because the prior art cited in the office action fails to teach or fairly suggest the claim limitations of the present invention, Applicant respectfully requests that the § 103 rejections over Wells in view of Dietz be removed at this time.


Rejections Under 35 U.S.C. § 103(a) Over Falco in View of Dietz

In the pending action, claims 1-14, 16, 17, 19-22, 24-43, and 45-58 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over Falco in view of Dietz. The prior art cited in the pending examination office action fails to teach or fairly suggest the claim limitations of the present invention. In particular, Falco discloses a fluid flow regulator on the surface of an object, but fails to disclose a fluid flow regulator which is removeably attached. Dietz is cited as prior art that discloses an article for reducing drag removeably attached to a surface. However, Dietz was filed as a patent application December 31, 2002 while the present application claims priority to an application filed June 21, 2002. Because the present application claims priority to an application filed prior to Dietz, Dietz is not a reference which may be cited against the present application. Because the art cited in the pending Office Action fails to teach or fairly suggest a removable orthogonal pressure recovery drop, Applicant respectfully request that the rejections under 35 U.S.C. § 103 (a) be withdrawn at this time.

Applicants submit that the amendments made herein do not add new matter and that the claims are now in condition for allowance. Accordingly, Applicants request favorable reconsideration. If the Examiner has any questions or concerns regarding this communication, the Examiner is invited to call the undersigned.

DATED this 15 day of February, 2007.

Respectfully submitted,

  
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